



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHEAST REGIONAL OFFICE
20 RIVERSIDE DRIVE, LAKEVILLE, MA 02347 508-946-2700

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

IAN A. BOWLES
Secretary

ARLEEN O'DONNELL
Commissioner

February 28, 2007

Mr. Arthur Bendinelli, Superintendent
North Raynham Water District
80 Baker Road
P.O. Box I
Raynham, Massachusetts 02767

RE: RAYNHAM – Taunton River Basin
NORTH RAYNHAM WATER DISTRICT
Program: Water Management Act
Action: Permit Amendment and 5-Year Review
Activity: Permit #9P2-4-25-245.02

Dear Mr. Bendinelli:

Please find attached the following:

- Findings of Fact in Support of the Amended Permit Decision; and,
- Water Management Act Permit Amendment #9P2-4-25-245.02 for the North Raynham Water District.

If you have any questions regarding the permit please contact Terry Martin at 508-946-2765 or email at Therese.Martin@state.ma.us.

Very truly yours,

Richard J. Rondeau, Chief
Drinking Water Program
Bureau of Resource Protection

R/TM/cb

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Attachment A – Wetland Hydrology Monitoring Guidance

cc: Stantec
5 Lan Drive
Westford, MA 01886
ATTN: Dave Harwood

Raynham Board of Selectmen
Raynham Board of Health

Communication for Non-English Speaking Parties (310 CMR 1.03(5)(a))

English

This document is important and should be translated immediately.

Spanish

Este documento es importante y se debe traducir inmediatamente.

Portuguese

Este original é importante e deve ser traduzido imediatamente.

Italian

Questo documento è importante e dovrebbe essere tradotto immediatamente.

Greek

Αυτό το έγγραφο είναι σημαντικό και πρέπει να μεταφραστεί αμέσως.

French

Ce document est important et devrait être traduit immédiatement.

Chinese (traditional)

這個文件重要和應該立刻被翻譯。
这个文件重要和应该立刻被翻译。

**Findings of Fact in Support of Final Permit Decision
Water Management Act Permit Amendment and 5-Year Review
RE: Water Management Permit 9P2-4-25-245.02
North Raynham Water District**

The Department of Environmental Protection (the Department or MassDEP) has completed the 5-year review of the North Raynham Water District permit in the Taunton River Basin pursuant to the Water Management Act (WMA), M.G.L. ch. 21G. In addition MassDEP has reviewed the Water Management Act Permit Amendment application, to add the proposed King Philip Bedrock Well to the existing permit. This application was prepared on your behalf by Stantec and dated August 2006. After having completed the regulatory notice and review, the Department hereby issues the attached withdrawal permit. This compliance review is conducted to insure that the terms of the permit and the goals of the Water Management Program are met.

To further these goals, promote the reasonable and appropriate use of water, and to protect the environmental resources of the Commonwealth, the Department was given the authority to modify permits at any time when it determines that such action is necessary for the promotion of the purposes of the Act, 310 CMR 36.29(2).

North Raynham Water District Withdrawal History

The North Raynham Water District is registered to withdraw 0.32 million gallons per day (mgd) on an annual average daily basis from the Taunton River Basin, provided the registration is renewed by January 1, 2008. The North Raynham Water District currently operates five registered or permitted sources. North Raynham Water District was issued a Water Management Permit on September 11, 2001, that included a new source, the Noblin Wellfield. This permit did not include any additional system-wide withdrawal volume because North Raynham Water District was not projected to increase by more than 100,000 gallons per day (gpd) above their registered withdrawal volume. Until such time as new permit is obtained to increase system-wide withdrawal volumes the District may not exceed 0.42 mgd on an average daily basis provided their registration is renewed.

Based upon the reported withdrawals for the years 2000 to 2005, the North Raynham Water District's total withdrawal volumes are within allowable limits. The average daily withdrawal volume ranged from 0.310 mgd in 2000 to 0.343 mgd in 2004. There were no violations of maximum daily withdrawal volumes from any sources. **The Water Management Act**

The Act requires that the Department issue permits that balance a variety of factors including:

- Reasonable protection of existing water uses, land values, investments and enterprises;
- Reasonable conservation consistent with efficient water use;
- Reasonable protection of public drinking water supplies, water quality, wastewater treatment capacity, waste assimilation capacity, groundwater recharge areas, navigation, hydropower resources, water-based recreation, wetland habitat, fish and wildlife, agriculture, flood plains; and
- Reasonable economic development and job creation.

To better achieve the balance of competing water uses mandated by the Act, the Department has adopted the "Water Management Policy For Permit and Permit Amendment Applications and 5-Year Review, Effective Date: April 2, 2004" and the "Guidance Document for Water Management Act Permitting

Policy, Effective Date: January 17, 2006". The Policy, WMA Policy #: BRP/ DWM/DW/P04-1, and Guidance, Guidance #BRP/DWM/DW/G05-01, can be found on the Department's web site at <http://www.mass.gov/dep/brp/wtrm/wtrmregs.htm>. The Policy and Guidance identify specific Performance Standards and conditions to be applied to new Water Management permits and to existing permits at the time they are amended, during 5-year permit review or permit renewal. The Department has applied these Performance Standards and conditions in North Raynham Water District's permit.

Findings of Fact for the Performance Standards in North Raynham Water District's Water Management Permit Amendment

As required by MGL c 21G, s 11 and 310 CMR 36.00, the Department makes the following Findings of Fact in support of the Permit amendment, and includes herewith its reasons for approving the Permit amendment and for imposing the conditions of approval.

In applying the Performance Standards in Water Management permits, the Department relies primarily upon the determinations of relative stress established by the Water Resources Commission's (WRC) Stressed Basins Report approved December 13, 2001. The Department also reviews other available research, such as reports by the United States Geological Survey, the Department's Watershed Water Quality Assessment Reports and any other pertinent reports available for specific river basins.

The North Raynham Water District's sources are located in the Taunton River Basin. The portion of the basin in which the sources of supply for the water district are located has been identified as unassessed by the Water Resources Commission. The policy established the following performance standards for all permittees that withdraw water from unassessed river basins:

1. Residential per capita water use (RGPCD) of 80 gallons per day or less;
2. Unaccounted for (UAF) water of 15% or less.

The map of stressed basins can be reviewed at the following link:

<http://www.mass.gov/dep/brp/wtrm/files/stresmap.htm>.

The standards set forth above shall hereinafter be referred to collectively as the "Basin Performance Standards." The reporting requirements added in the Permit are intended to standardize the information submitted to the Department to assess compliance with the Permit and the Basin Performance Standards. The Permit contains a requirement that these performance standards be met within two years following issuance of the permit. Failure to meet these standards in the future will require implementation of additional water conservation measures, and may result in enforcement by the Department.

The Performance Standards of 80 gallons per day or less for residential per capita daily water use and 15% or less for unaccounted for water are reasonable standards as reflected by the fact that average values in 2004 for Massachusetts were 67 RGPCD, and 13% UAW. North Raynham Water District's unaccounted-for water is documented at 6.59% for 2005. While these Performance Standards represent minimum standards required for compliance with North Raynham Water District, the Department believes that the cumulative effect of complying with all the terms and conditions of its Permit will enable North Raynham Water District to not only continue to meet the Performance Standards, but allow them to do considerably better.

Findings of Fact for Specific Permit Conditions

In issuing permits in the Taunton River Basin, the Department looked primarily at site-specific impacts and other issues specific to the system, such as impacts to nearby surface waters, wetlands, or other water users, justification of long-term demand projections and the capacity of permitted withdrawal points. The conditions are intended to ensure the efficient use of water and to mitigate the potential impact of withdrawals.

Special Condition 1, Authorized Annual Average Withdrawal Volume, reflects the registered withdrawal volume of 0.32 million gallons per day (MGD). This volume was based on the fact that Department of Conservation and Recreation population projections show that demand will increase by less than 100,000 gpd over the registered volume during the life of this permit. Permits are required only for increases in excess of 100,000 gpd over registered volume, thus, total system-wide withdrawals during the life of this permit cannot exceed the registered withdrawal volume by more 0.10 mgd on an annual average daily basis (0.42 mgd system-wide total) without first obtaining a permit.

Based upon the reported withdrawals for the years 2000 to 2005, the North Raynham Water District's total withdrawal volumes are within allowable limits. The average daily withdrawal volume ranged from 0.310 in 2000 to 0.343 in 2004.

Special Condition 2, Maximum Authorized Daily Withdrawal Volumes from Each Withdrawal Point, reflects the volume of groundwater withdrawal expressed as a daily rate for each source included in North Raynham Water District's permit, according to Department approved Zone II rates.

There were no violations of maximum daily withdrawal volumes from any sources.

Special Condition 3, Zone of Contribution (Zone II or Zone III Delineations)

Requirement has been met and no further delineations are required as a condition of this permit.

Special Condition 4, Wellhead Protection

Department records show that the North Raynham Water District has a Water Resource Protection Overlay District and associated map which establishes land use controls within the Zone I and II of existing water supply wells. The Overlay District already includes much of the area surrounding the Noblin Wellfield and King Philip Bedrock Well, however, it will be necessary to amend the current map to incorporate the newly delineated Zone II boundaries associated with these proposed sources. Because this system is a water district, best effort criteria, in accordance with 310 CMR 22.21(1)(e) must be met relative to requesting that the Town of Raynham adopt the Overlay District amendments described above.

In addition, since a portion of the Zone II extends into Taunton, it will be necessary to meet best effort criteria, in accordance with 310 CMR 22.21(1)(e) relative to requesting that Taunton adopt appropriate land use controls for that portion of the Zone II which extends into their town.

Best effort criteria in accordance with 310 CMR 22.21(1)(e) must be met prior to either source, Noblin Wellfield or the King Philip Bedrock Well, coming on line.

Special Condition 5, Wetlands Monitoring

Monitoring of the wetlands adjacent to King Philip Wells #3a and #3b was required on an annual basis. In May of 2004, based on the data provided to the Department from 1997 through 2003, the Department eliminated the requirement for future wetland monitoring in this area.

Monitoring of the wetlands adjacent to the Noblin Wellfield is required on an annual basis. Monitoring should be conducted in accordance with Attachment A – Wetland Hydrology Monitoring Guidance for Water Withdrawal Permit Compliance, which was appended to your prior permit and is included as an attachment to this permit. This monitoring must be conducted each year, in accordance with the guidance and will be reviewed at the permit's renewal in 2010. At that time the plan may be continued, revised or discontinued.

Special Condition 6, Performance Standard for Residential Gallons Per Capita Day Water Use,

Discussed previously

Special Condition 7, Performance Standard for Unaccounted for Water,

Discussed previously

Special Condition 8, Water Conservation Requirements,

Incorporates the Water Conservation Standards for the Commonwealth of Massachusetts reviewed and approved by the WRC in October 1992.

Special Condition 9, Requirement to Report Raw Finished Water Volumes, ensures that the information necessary to evaluate compliance with the conditions included herein as accurately reported.

The summary of Permit conditions above as part of the Department's findings of fact is not intended to, and should not be construed as modifying any of the Permit conditions. In the event of any conflict or ambiguity between this letter and the Permit, and Permit language shall control.

WATER WITHDRAWAL PERMIT
MGL c 21G

This permit is issued pursuant to the Massachusetts Water Management Act for the sole purpose of authorizing the withdrawal of a volume of water as stated below and subject to the following special and general conditions. This permit conveys no right in or to any property beyond the right to withdraw the volume of water for which it is issued.

PERMIT NUMBER: 9P2-4-25-245.02

RIVER BASIN: Taunton

PERMITTEE: North Raynham Water District
80 Baker Road
Raynham, MA 02767

ISSUANCE DATE: 9/11/2001

AMENDMENT DATE: 2/28/2007

EXPIRATION DATE: 2/28/2010

TYPE AND NUMBER OF WITHDRAWAL POINTS:

Groundwater: 7
Surface Water: 0

USE: Public Water Supply

DAYS OF OPERATION: 365

LOCATION(S):

Table 1: Withdrawal Point Identification

Well Name	PWS Source ID Code
King Philip Well #1	4245002-01G
King Philip Well #2	4245002-03G
King Philip Well #3a	4245002-04G
King Philip Well #3b	4245002-05G
First St. Replacement Well	4245002-06G
Noblin Wellfield	4245002-0AG
King Philip Bedrock Well	4245002-0BG

SPECIAL CONDITIONS

1. Maximum Authorized Annual Average Withdrawal Volume

The North Raynham Water District is registered under the Water Management Act for 0.32 million gallons per day (mgd) for system-wide withdrawals on average over a calendar year.

Department of Environmental Management population projections show that demand will increase by less than 100,000 gpd over the registered volume during the life of this permit. Permits are required only for increases in excess of 100,000 gpd over registered volume, thus, total system-wide withdrawals cannot exceed 0.42 mgd on average over the course of any year, provided North Raynham's registration is renewed.

2. Maximum Authorized Daily Withdrawal Volumes

Withdrawals from individual withdrawal points are not to exceed the approved maximum daily volume listed below (Table 2) without specific advance written approval from the Department. The authorized maximum daily volume is the approved rate of each source. In no event shall the combined withdrawals from the individual withdrawal points exceed the withdrawal volumes authorized above in Special Condition 1.

Table 2: Maximum Authorized Withdrawal Volumes

Well Name	PWS Source ID Code	Maximum Daily Rate MGD)
King Philip Well #3a and #3b	4245002-04G 4245002-05G	0.47
Noblin Wellfield	4245002-0AG	0.68
Proposed King Philip Bedrock Well	4245002-0BG	0.60

3. Zone of Contribution (Zone II or Zone III) Delineations

Department records show that all permitted wells (King Philip Wells #3a and #3b, Noblin Wellfield and the Proposed King Philip Bedrock Well) have MassDEP approved Zone II delineations. Therefore, no further Zone II work is required as a condition of this permit.

4. Wellhead Protection

Department records show that the North Raynham Water District has a Water Resource Protection Overlay District and associated map which establishes land use controls within the Zone I and II of existing water supply wells. The Overlay District already includes much of the area surrounding the Noblin Wellfield and King Philip Bedrock Well, however, it will be necessary to amend the current map to incorporate the newly delineated Zone II boundaries associated with these proposed sources. Because this system is a water district, best effort criteria, in accordance with 310 CMR 22.21(1)(e) must be met relative to requesting that the Town of Raynham adopt the Overlay District amendments described above.

In addition, since a portion of the Zone II extends into Taunton, it will be necessary to meet best effort criteria, in accordance with 310 CMR 22.21(1)(e). relative to requesting that Taunton adopt appropriate land use controls for that portion of the Zone II which extends into their town.

Best effort criteria in accordance with 310 CMR 22.21(1)(e) must be met prior to either source, Noblin Wellfield or the King Philip Bedrock Well, coming on line.

5. Wetlands Monitoring

Monitoring of the wetlands adjacent to King Philip Wells #3a and #3b was required on an annual basis. In May of 2004, based on the data provided to the Department from 1997 through 2003, the Department eliminated the requirement for future wetland monitoring in this area.

Monitoring of the wetlands adjacent to the Noblin Wellfield is required on an annual basis. Monitoring should be conducted in accordance with Attachment A – Wetland Hydrology Monitoring Guidance for Water Withdrawal Permit Compliance, which was appended to your prior permit. This monitoring must be conducted each year, in accordance with the guidance and will be reviewed during the renewal process for this permit in 2010. At that time the plan may be continued, revised or discontinued.

6. Performance Standard for Residential Gallons per Capita Day Water Use

North Raynham Water District's Performance Standard for Residential Gallons Per Capita Day (RGPCD) is 80 gallons. North Raynham Water District shall be in compliance with the Performance Standard by December 31, 2009. North Raynham Water District shall report its RGPCD water use annually in its Annual Statistical Report (ASR) and document compliance with this Performance Standard in its ASR for 2009 and each year thereafter.

North Raynham Water District shall report its RGPCD and the calculation used to derive that figure as part of its ASR including, without limitation, the source of the data used to establish the service population and the year in which this data was developed. See Appendix A for additional information on the requirements if the Performance Standard for RGPCD is not met.

7. Performance Standard for Unaccounted for Water

North Raynham Water District's Performance Standard for Unaccounted for Water (UAW) is 15% of overall water withdrawal. North Raynham Water District shall be in compliance with the Performance Standard by December 31, 2009. North Raynham Water District shall report its UAW annually in its Annual Statistical Report (ASR) and document compliance with this Performance Standard in its ASR for 2009 and each year thereafter.

North Raynham Water District shall report its UAW and the calculation used to derive that figure as part of its ASR. UAW is defined as the difference between water pumped or purchased and water that is metered or confidently estimated. UAW shall include, without limitation, water that cannot be accounted for due to meter problems, unauthorized hydrant openings, unavoidable leakage, recoverable leakage, illegal connections, stand pipe overflows, and fire protection where it cannot be confidently estimated. The need for water main flushing and the use of water in construction or meter calibration shall be metered or estimated as appropriate to assist in determining actual demand. Volumes flushed to waste shall be reported on North Raynham Water District' ASR. See Appendix B for additional information on requirements if the Performance Standard for UAW is not met.

8. Water Conservation Requirements

At a minimum, North Raynham Water District shall implement the following conservation measures (Table 3). The Department recognizes that North Raynham Water District is currently implementing a number of these requirements. Compliance with the water conservation requirements shall be reported to the Department upon request or at the time of Permit Renewal unless otherwise noted below.

Table 3: Minimum Water Conservation Requirements

<u>System Water Audits and Leak Detection</u>	
1.	At a minimum, conduct a full leak detection survey every three years.
2.	Perform a leak detection survey of the entire distribution system within one year whenever the percentage of unaccounted for water increases by 5% or more (for example an increase from 3% to 8%) over the percentage reported on the ASR for the prior calendar year. Within 60 days of completing the leak detection survey, North Raynham Water District shall submit to the Department for its review a report detailing the leak detection survey, any leaks uncovered as a result of the survey or otherwise, dates of repair and the estimated water savings as a result of the repairs.
3.	Conduct field surveys for leaks and repair programs in accordance with the <i>AWWA Manual 36</i> .
4.	<p>North Raynham Water District shall have repair reports available for inspection by the Department. North Raynham Water District shall establish a schedule for repairing leaks that is at least as stringent as the following:</p> <ul style="list-style-type: none"> - Leaks of three (3) gallons per minute or more shall be repaired as soon as possible, and in any event within three (3) months of detection. - Leaks of less than three (3) gallons per minute at hydrants and appurtenances shall be repaired as soon as possible. - Leaks of less than three (3) gallons per minute shall be repaired in a timely manner, but in no event more than six (6) months from detection, except that leaks in freeway, arterial or collector roadways shall be repaired when other roadwork is being performed on the roadway. <p>Leaks shall be repaired in accordance with North Raynham Water District' priority schedule including leaks up to the service meter. However, in the event that the landowner is unwilling or unable to repair leaks between the property line and the service meter in accordance with North Raynham Water District' schedule, North Raynham Water District shall repair such leaks within seven (7) days of obtaining either: (1) the written consent of the landowner; or (2) a warrant authorizing access to the property to make the necessary repair. North Raynham Water District shall exercise best efforts to obtain the written consent of the landowner or a warrant authorizing access to the property to make the necessary repair.</p>
5.	<p>If the difference between the quantity of the raw water entering each treatment plant and the quantity of the finished water entering the distribution system from each treatment plant exceeds 5%, North Raynham Water District shall submit to the Department for its review and approval a scope of work and schedule for conducting a water audit of the treatment plant by December 31st of the year following the exceedance. The scope of work for the water audit shall provide for a comprehensive evaluation of the operations of the treatment plant and include a schedule for completing the evaluation. North Raynham Water District shall conduct the water audit in accordance with the scope of work and schedule approved by the Department. Within 60 days of completing the water audit of the treatment plant, North Raynham Water District shall submit to the Department for its approval a report documenting the results of the water audit, the recommended actions to save water during the treatment process, and the schedule for implementing the recommended actions. North Raynham Water District shall implement such actions as approved by the Department and in accordance with the schedule approved by the Department.</p>
<u>Metering</u>	
1.	Calibrate all source and finished water meters at least annually and report date of calibration on the ASR.
2.	North Raynham Water District reports its system is 100% metered. All water distribution system users shall have properly sized service lines and meters that meet AWWA calibration and accuracy performance standards as set forth in <i>AWWA Manual M6 – Water Meters</i> , by the next 5 year review date.

Table 3: Minimum Water Conservation Requirements (continued)

3. North Raynham Water District reports an ongoing program to inspect individual service meters to ensure that all service meters accurately measure the volume of water used by your customers. The metering program shall include regular meter maintenance, including testing, calibration, repair, replacement and checks for tampering to identify and correct illegal connections. The plan shall continue to include placement of sufficient funds in North Raynham Water District's annual water budget to calibrate, repair, or replace meters as necessary.

Pricing

1. North Raynham Water District must continue to implement a water pricing structure that includes the full cost of operating the water supply system. Evaluate rates every three to five years and adjust costs as needed. Full cost pricing factors all costs - operations, maintenance, capital, and indirect costs (environmental impacts, watershed protection) - into prices.
2. North Raynham Water District shall not use decreasing block rates. Decreasing block rates which charge lower prices as water use increases during the billing period, are not allowed by M.G.L. Chapter 40: Section 39L.

Residential and Public Sector Conservation

1. North Raynham Water District shall meet the standards set forth in the Federal Energy Policy Act, 1992 and the Massachusetts Plumbing Code.
2. Meter or estimate water used by contractors using fire hydrants for pipe flushing and construction.
3. Municipal buildings
 - By December 31, 2007, submit to the Department a status report detailing which municipally owned public buildings in the North Raynham Water District service area have been retrofitted with water saving devices (faucet aerators, low flow shower heads and low flow toilets) and which of those buildings have yet to be retrofitted, along with a schedule to complete the retrofitting by December 31, 2012.
 - On or before December 31, 2012, North Raynham Water District shall demonstrate to the Department's satisfaction that a "Best Effort" was made by North Raynham Water District to get the Town to make those retrofits.

Note municipally owned public buildings that may be scheduled for rehab or demolition after the December 31, 2012 deadline for completing the retrofits, may with the Department's approval, be exempted from this condition based on the schedule of work. Status report required above should identify those buildings and schedule for repairs/demolition.

Industrial and Commercial Water Conservation

1. North Raynham Water District shall review the use records for its industrial, commercial and institutional water users and develop an inventory of the largest water users. North Raynham Water District shall continue to implement an outreach program designed to inform and (where appropriate) work with its industrial, commercial and institutional water users on ways to reduce their water use. Such outreach plans can include, but are not limited to: information on water audits, meter sizing, water reuse, low-flow plumbing fixtures, mandatory outdoor water use restrictions, suggestions for contacting trade associations for process specific information on water use reductions, and information on contacting the Executive Office of Environmental Affairs Office of Technical Assistance for Toxics Use Reduction (OTA) which offers a range of assistance and information to help facilities improve water use efficiency and reduce wastewater discharge. OTA can be contacted at (617) 626-1060 or at www.mass.gov/envir/ota.
2. Upon request by the Department, North Raynham Water District shall report on industrial, commercial and institutional water conservation including the results of its review of water use records for industrial, commercial and institutional water users, the inventory of the largest water users, copies of any outreach materials distributed to industrial, commercial and institutional water users, and to the extent practical, a summary of water use reductions or savings that have resulted. Upon receipt of this report, the Department will take whatever action it deems appropriate to promote the interests of the Water Management Act, including without limitation requiring North Raynham Water District to take additional actions to reduce industrial, commercial and institutional water use.

Table 3: Minimum Water Conservation Requirements (continued)	
<u>Lawn and Landscape</u>	
1.	Continue to implement and enforce North Raynham Water District's water use restriction bylaw as needed.
<u>Public Education and Outreach</u>	
1.	<p>Continue to implement a Water Conservation Education Plan. North Raynham Water District's Water Conservation Education Plan shall be designed to educate North Raynham Water District's water customers of ways to conserve water. Without limitation, North Raynham Water District's plan may include the following actions:</p> <ul style="list-style-type: none">• Include in bill stuffers and/or bills, a work sheet to enable customers to track water use and conservation efforts and estimate the dollar savings;• Public space advertising/media stories on successes (and failures);• Conservation information centers perhaps run jointly with electric or gas company;• Speakers for community organizations;• Public service announcements; radio/T.V./audio-visual presentations;• Joint advertising with hardware stores to promote conservation devices;• Use of civic and professional organization resources;• Special events such as Conservation Fairs;• Develop materials that are targeted to schools with media that appeals to children, including materials on water resource projects and field trips; and• Make multilingual materials available as needed.
2.	Upon request of the Department, North Raynham Water District shall report on its public education and outreach effort, including a summary of activities developed for specific target audiences, any events or activities sponsored to promote water conservation and copies of written materials.

9. Requirement to Report Raw and Finished Water Volumes

North Raynham Water District shall report annually on its ASR the raw water volumes and finished water volumes for the entire water system and the raw water volumes for individual water withdrawal points.

GENERAL CONDITIONS (applicable to all permittees)

1. **Duty to Comply** The permittee shall comply at all times with the terms and conditions of this permit, the Act and all applicable State and Federal statutes and regulations.
2. **Operation and Maintenance** The permittee shall at all times properly operate and maintain all facilities and equipment installed or used to withdraw up to the authorized volume so as not to impair the purposes and interests of the Act.
3. **Entry and Inspections** The permittee or the permittee's agent shall allow personnel or authorized agents or employees of the Department to enter and examine any property for the purpose of determining compliance with this permit, the Act or the regulations published pursuant thereto, upon presentation of proper identification and an oral statement of purpose.
4. **Water Emergency** Withdrawal volumes authorized by this permit are subject to restriction in any water emergency declared by the Department pursuant to MGL c 21G ss 15-17, MGL c 150 ss 111, or any other enabling authority.
5. **Transfer of Permits** This permit shall not be transferred in whole or in part unless and until the Department approves such transfer in writing, pursuant to a transfer application on forms provided by the Department requesting such approval and received by the Department at least thirty (30) days before the effective date of the proposed transfer. No transfer application shall be deemed filed unless it is accompanied by the applicable transfer fee established by 310 CMR 36.37.
6. **Duty to Report** The permittee shall submit annually, on a form provided by the Department, a certified statement of the withdrawal, such report to be received by the Department by January 31st of each year. Such report must be mailed or hand delivered to:

Department of Environmental Protection
Drinking Water Program
Water Management Program
One Winter Street, 6th Floor
Boston, MA 02108

7. **Duty to Maintain Records** The permittee shall be responsible for maintaining monthly withdrawal records.
8. **Metering** All withdrawal points included within the permit shall be metered within one year of the date of issuance of the permit. OR (for existing metered withdrawal points) The withdrawal point(s) included within this permit are metered and shall be calibrated annually. Meters shall be maintained and replaced as necessary to ensure the accuracy of the withdrawal records.

APPEAL RIGHTS AND TIME LIMITS

This permit is a decision of the Department. Any person aggrieved by this decision may request an adjudicatory hearing. Any such request must be made in writing, by certified mail and received by the Department within twenty-one (21) days of the date of receipt of this permit. No request for an appeal of this permit shall be validly filed unless a copy of the request is sent by certified mail, or delivered by hand to the local water resources management official in the city or town in which the withdrawal point is located; and for any person appealing this decision, who is not the applicant, unless such person notifies the permit applicant of the appeal in writing by certified mail or by hand within five (5) days of mailing the appeal to the Department.

CONTENTS OF HEARING REQUEST

310 CMR 1.01(6)(b) requires the request to include a clear and concise statement of the facts which are the grounds for the request and the relief sought. In addition, the request must include a statement of the reasons why the decision of the Department is not consistent with applicable rules and regulations, and for any person appealing this decision who is not the applicant, a clear and concise statement of how that person is aggrieved by the issuance of this permit.

FILING FEE AND ADDRESS

The hearing request, together with a valid check, payable to the Commonwealth of Massachusetts in the amount of \$100 must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, Ma. 02211

The request shall be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below.

EXEMPTIONS

The filing fee is not required if the appellant is a city or town (or municipal agency), county, district of the Commonwealth of Massachusetts, or a municipal housing authority.

WAIVER

The Department may waive the adjudicatory hearing filing fee for any person who demonstrates to the satisfaction of the Department that the fee will create an undue financial hardship. A person, seeking a waiver must file, together with the hearing request, an affidavit setting forth the facts which support the claim of undue hardship.

NO WITHDRAWAL IN EXCESS OF 100,000 GALLONS PER DAY OVER THE REGISTERED VOLUME (if any) SHALL BE MADE FOLLOWING THE EXPIRATION OF THIS PERMIT, UNLESS BEFORE THAT DATE THE DEPARTMENT HAS RECEIVED A RENEWAL PERMIT APPLICATION PURSUANT TO 310 CMR 36.00.

Appendix A – Residential Gallons Per Capita Day

I. Compliance Plan Requirement

If North Raynham Water District fails to document compliance with the RGPCD Performance Standard in its 2009 ASR, or in any ASR thereafter, then North Raynham Water District must file with that ASR a Residential Gallons Per Capita Day Compliance Plan (RGPCD Plan) which shall:

- a. meet the requirement set forth below in Section II;
- b. include measures to be implemented to meet the Performance Standard; and
- c. include the schedule for implementing such measures.

The filing of a RGPCD Plan shall not constitute a return to compliance, nor shall it affect the Department's authority to take action in response to North Raynham Water District' failure to meet the Performance Standard.

If a RGPCD Plan is required, North Raynham Water District must:

- a. submit information and supporting documentation sufficient to demonstrate compliance with its RGPCD Plan annually at the time it files its ASR; and
- b. continue to implement the RGPCD Plan until it complies with the Performance Standard and such compliance is documented in North Raynham Water District' ASR for the calendar year in which the standard is met.

II. Contents of a Residential Gallons Per Capita Day Compliance Plan

At a minimum, all RGPCD Compliance Plans must include a detailed:

- a. description of the actions taken during the prior calendar year to meet the Performance Standard;
- b. analysis of the cause of the failure to meet the Performance Standard;
- c. description and schedule of the actions that will be taken to meet the Performance Standard; and
- d. analysis of how the actions described in c. will address the specific circumstances that resulted in the failure to meet the Performance Standard.

RGPCD Plans may be amended to revise the actions that will be taken to meet the Performance Standard. Amended RGPCD Plans must include the information set forth in paragraph above.

At a minimum, all RGPCD Plans for failure to meet the RGPCD Performance Standard must include implementation of at least one of the following residential conservation programs:

- a. a program that provides water saving devices such as faucet aerators and low flow shower heads at cost;
- b. a program that provides rebates or other incentives for the purchase of low water use appliances (washing machines, dishwashers, and toilets); or
- c. the adoption and enforcement of an ordinance, bylaw or regulation to require the installation of moisture sensors or similar climate related control technology on all automatic irrigation systems.

If North Raynham Water District is already implementing one or more of these programs, it must include in its RGPCD Plan the continued implementation of such program(s), as well as implementation of at least one additional program. All programs must include a public information component designed to inform customers of the program and to encourage participation in the program.

Without limitation, RGPCD Plans for failure to meet the RGPCD Performance Standard may include the following actions in addition to those outlined in the paragraph above:

- a. the use of an increasing block water rate or a seasonal water rate structure as a tool to encourage water conservation;
- b. a program that provides rebates or other incentives for the installation of moisture sensors or similar climate related control technology on automatic irrigation systems;
- c. the adoption and enforcement of an ordinance, bylaw or regulation to require that all new construction include water saving devices and low water use appliances;
- d. the adoption and enforcement of an ordinance, bylaw or regulation to require that all new construction minimize lawn area and/or irrigated lawn area, maximize the use of drought resistant landscaping, and maximize the use of top soil with a high water retention rate;
- e. the implementation of a program to encourage the use of cisterns or rain barrels for outside watering; and
- f. the implementation of monthly or quarterly billing.

Appendix B – Unaccounted for Water

I. Compliance Plan Requirement

If North Raynham Water District fails to document compliance with the UAW Performance Standard in its 2009 ASR, or in any ASR thereafter, then North Raynham Water District must file with that ASR an Unaccounted for Water Compliance Plan (UAW Plan) which shall:

- a. meet the requirements set forth below in Section II;
- b. include measures to be implemented to meet the Performance Standard; and
- c. include the schedule for implementing such measures.

The filing of a UAW Plan shall not constitute a return to compliance, nor shall it affect the Department's authority to take action in response to North Raynham Water District's failure to meet the Performance Standard.

If a UAW Plan is required, North Raynham Water District must:

- a. submit information and supporting documentation sufficient to demonstrate compliance with its UAW Plan annually at the time it files its ASR; and
- b. continue to implement the UAW Plan until it complies with the Performance Standard and such compliance is documented in North Raynham Water District's ASR for the calendar year in which the standard is met

II. Contents of an Unaccounted for Water Compliance Plan

North Raynham Water District has the choice to file a UAW Plan with measures tailored to the specific needs of its water supply system (Individualized UAW Plan) or a UAW Plan that includes Best Management Practices (BMP UAW Plan).

At a minimum, all UAW Plans must include a detailed:

- a. description of the actions taken during the prior calendar year to meet the applicable Performance Standard;
- b. analysis of the cause of the failure to meet the Performance Standard;
- c. description and schedule of the actions that will be taken to meet the Performance Standard; and
- d. analysis of how the actions described in c. will address the specific circumstances that resulted in the failure to meet the performance standards.

UAW Plans may be amended to revise the actions that will be taken to meet the Performance Standard. Amended UAW Plans must include the information set forth in the paragraph above.

Individualized UAW Compliance Plan

Without limitation, Individualized UAW Compliance Plans for failure to meet the UAW Performance Standard may include any of the actions set forth in the BMP UAW Compliance Plan below.

BMP UAW Compliance Plan

At a minimum, all BMP UAW Plans for failure to meet the UAW Performance Standard must include all of the following actions:

- a. within one year of filing the UAW Plan, complete a water audit and leak detection survey of the entire system and submit completed audit and survey to the Department; within one year of completing the audit and leak detection survey, conduct sufficient repairs to reduce by 75% (by water volume) all leaks detected in the survey; and

- within one year of completing such repairs, conduct additional repairs of leaks detected in the survey as may be necessary to reduce permittee's UAW to 10% or less;
- b. implementation of a program that ensures the inspection and evaluation of all water meters and, as appropriate, the repair, replacement and calibration of water meters in accordance with the following schedule:
 - Large Meters (2" or greater) - within one year of filing the BMP UAW Plan
 - Medium Meters (1" or greater and less than 2") - within two years of filing the BMP UAW Plan
 - Small Meters (less than 1") – within three years of filing the BMP UAW Plan;
 - c. implementation of monthly or quarterly billing within three years of filing the BMP UAW Plan; and
 - d. within one year of filing the UAW Plan, implementation of a water pricing structure that achieves sufficient revenues to pay the full cost of operating the system including, without limitation, the costs of repairs under paragraph a., the costs of meter repairs, replacements and calibrations under paragraph b., the costs of employees and equipment, and ongoing maintenance and capital costs.